

## **I. Amendments**

Amendments to the Claims are reflected in the Listing of the Claims, which begins on page 3 of this paper.

## A. Amendments to the Claims

### Listing of the Claims

This listing of claims replaces all prior versions and listings of claims in the application. Please amend claims 4, 8, 9 and 14-20 as follows:

1-3 (previously cancelled)

4. (currently amended) An optical encoding system,  
comprising:

a ~~photo-emitter~~ light source configured to emit light;

a code strip, comprising:

a calibration area configured to generate  
~~for generating a calibration signal, wherein the~~  
~~said calibration area comprises having a degree~~  
~~of transparency associated therewith that~~ —  
~~wherein said transparency decreases as~~  
~~contaminants collect on said the~~ code strip;

an indexing area configured to generate  
~~for generating an indexing signal; and~~

an encoding area for generating an  
encoding signal;

a photo detector, comprising:

a calibration photodiode configured to  
convert for converting a light transmitted through  
~~from the calibration area from the light source into~~  
an electrical calibration signal, wherein said ~~the~~

calibration signal ~~being~~ is used to determine the  
said degree of transparency of the said  
calibration area;

an indexing photodiode configured to  
convert for converting light transmitted  
through from said the indexing area from the  
light source into an electrical indexing signal;  
and

an encoding photodiode ~~for~~  
converting light configured to convert light  
transmitted through the from said encoding  
area from the light source into an electrical  
encoding signal; and

a calibration circuit operably coupled to with said the  
photo detector and the light source said photo-emitter, the  
circuit being configured to compare, wherein if said the degree  
of transparency of said calibration area to a threshold value is  
insufficient, said circuit and in the event the threshold value is  
greater than or equal to the degree of transparency, the  
calibration circuit further being configured to increase increases  
a current provided to the light source said photo-emitter to  
increase the brightness of light emitted therefrom in a direction  
of the indexing area and the encoding area to compensate for  
said insufficient transparency of said code strip based on said  
calibration area with no input signals being provided to said  
circuit from said encoding area or said indexing area.

5-7 (previously cancelled)

8. (currently amended) The optical encoding system of Claim 4, ~~wherein said code strip is arranged such that light from the photo-emitter passes through transparent areas on said code strip.~~ wherein the degree of transparency of the calibration area is representative of the degree of transparency of the code strip as a whole

9. (currently amended) The optical encoding system of Claim 4, wherein the current is increased when the degree of transparency is a predetermined amount above the threshold ~~valuesaid detector is arranged to receive light which passes from said photo-emitter through transparent areas on said code strip.~~

10-13 (previously cancelled)

14. (currently amended) The optical encoding system of Claim 48, ~~wherein~~ further comprising a wiper configured to wipe the code strip according to at least one of a predetermined schedule and in response to a command from the calibration circuit said circuit modulates current to said photo-emitter in response to said calibration signal originating from said calibration photodiode on said detector.

15. (currently amended) An optical encoding method,  
comprising:

generating light from a light source;

transmitting the said light through a code strip, the said-  
code strip comprising a calibration area, an indexing area and  
an encoding area;

receiving the said light after it has been transmitted  
through the said calibration area;

converting the said light transmitted through the said-  
calibration area into a calibration signal;

analyzing using said the calibration signal to determine  
whether or not a degree of transparency of the said calibration  
area is greater than a threshold value, sufficient, wherein said-  
the degree of transparency being is decreased as contaminants  
are deposited on the said code strip; and

if the threshold value is greater than or equal to the  
degree of transparency~~said transparency of said calibration~~-  
~~area is insufficient~~, increasing a current provided to the said-  
light source to increase a brightness thereof~~compensate for~~-  
~~said insufficient transparency of said code strip based on said~~-  
~~calibration area with no input signals being provided to said~~-  
~~circuit from said encoding area or said indexing area.~~

16. (currently amended) The optical encoding method of Claim  
15, wherein ~~the calibration signal is a function of a degree of~~  
~~transparency of the calibration area of the code strip~~ further  
comprising providing a wiper configured to wipe the code strip  
and wiping of code strip with the wiper according to a  
predetermined schedule.

17. (currently amended) The optical encoding method of Claim 15, wherein the brightness of the said-light is modulated  
~~controlled according to~~ by an the electrical calibration signal.

18. (currently amended) The optical encoding method of Claim 15, wherein the brightness of ~~said-the~~ light is modulated  
according to a function of the degree of transparency of the  
calibration area of the said-code strip.

19. (currently amended) The optical encoding system of Claim 4, wherein the current is increased when the degree of  
transparency is a predetermined amount above the threshold  
value further comprising a wiper, wherein if said degree of  
transparency of said calibration area is insufficient, said wiper  
wipes said code strip to remove said contaminants deposited  
on said code strip.

20. (currently amended) The optical encoding method of Claim 15, wherein the degree of transparency of the calibration area  
is representative of the degree of transparency of the code  
strip as a whole further comprising operating a wiper to remove  
said contaminants from said code strip to increase said  
transparency of said code strip, if said transparency is  
insufficient.